5.0 Glossary

Abandonment: Permanent closure of a road to restore natural drainage, prevent erosion, and prevent vehicle access.

Abiotic: Absence of life or living organisms. Examples of abiotic causes of tree damage include drought, flooding, fire and chemicals.

Aggradation: A local accumulation of sediment that raises the grade or level in an aquatic environment.

Alevin: The developmental stage following hatching of larval salmon.

Alluvial: Sediments deposited by flowing water.

Anadromous: The tendency of a fish to feed in saltwater and breed in freshwater.

Anti-aggregant pheromone: An insect communication chemical which spreads the message to disperse or move away from the source of the message.

Aquatic macroinvertebrates: Small animals living all or part of their lives within the aquatic environment (e.g., insects, worms, mites, etc.).

Aquifer: A formation of permeable rock, sand or gravel that contains or conducts groundwater.

Artifact: Portable object produced by human activity.

Autotrophic: An organism whose source of energy comes from the sun.

B.P.: Before Present.

Bedload: That part of a stream's sediment load that moves along the bottom.

Biomass: The amount of living matter in a given habitat, expressed either as the weight of organisms per unit area or as the volume of organisms per unit volume of habitat.

Biotic: Pertaining to life or living beings. Examples of biotic causes of tree damage include animals, insects, fungi and bacteria.

Block glide: A generally deep-seated, slow slope movement process, in which a relatively intact mass of soil and/or rock moves downslope without rotation along a planar or gently undulating surface of rupture.

Borrow pit: A small, local site that is a source of fill material such as dirt or gravel.

Carbon credit: Measured amount of carbon captured by human activities, recorded against a carbon ledger (as opposed to a carbon debit, i.e., a measured amount of carbon released by human activities, also recorded against a carbon ledger).

Carbon sequestration: Transformation of carbon into forms temporarily or permanently incapable of contributing to atmospheric carbon stocks.

Certification: Continual assessment process in which forest management practices (and wood processing activities) are assessed against a set of explicit criteria developed to ensure externally recognized practice standards are achieved and maintained.

Cobble: The sediment particle size (2.5-10 inches in diameter) that is larger than gravel, but smaller than a boulder.

Concave: A geometric form curved downward (converging).

Convex: A geometric form curved upward (diverging).

Culturally-modified trees (CMT): A CMT is a tree that has been altered by native peoples as part of their traditional use of the forest. These trees are protected by law and have been found eligible for inclusion on the National Register of Historic Places.

Debris flow: A generally shallow, rapid slope movement process consisting of the downslope movement of a mass of soil, rock, vegetation and other debris as a slurry, usually having roughly the consistency of wet concrete.

Debris slide: A generally shallow, slow to rapid slope movement process consisting of the downward movement of predominantly unconsolidated soil, rock, vegetation and other debris in which the mass slides or rolls forward.

Debris torrents: The sudden movement of saturated soil and organic debris caused by the failure of a temporary obstruction within a stream channel.

Detritus: Fine particulate organic matter (e.g., leaves, twigs, bark, etc.).

Discount rate: Substitution of current consumption for future consumption, reflecting a measure of an underlying willingness to defer

consumption to a future time, i.e., the price or cost of time. A 10 percent annual discount rate indicates that $1.00 now will be worth $1.10 in one year's time (or *vice versa*) or, alternatively, that $1.00 in one year's time is worth $0.91 now (or *vice versa*).

Eddies: An extremely low velocity area along the margins of a stream.

Egg pocket: The subgravel location of most of a salmon's deposited eggs.

Emergence: The time when salmon fry exit the gravel environment.

Entomb: To physically restrict the emergence of salmon fry to the point of death.

Entrenchment: Deep and narrow erosion of the streambed.

Epizootic: A disease that causes a population to rapidly and precipitously decline.

Ethnographic: Native cultures documented during and after Euro-American contact.

Euro-American: North American people deriving from European or primarily European cultures.

Evapotranspiration: Loss of water from the soil both by evaporation and by transpiration from plants.

Fan channels: The division of a stream channel into many subchannels across a delta.

Features: Non-portable objects or relationships produced by human activity.

Fines: Sand sized sediment smaller than 0.850 mm diameter.

Foliated: Pertaining to a metamorphic rock texture consisting of flattened layers of mineral grains.

Fry: The juvenile salmon before it has gone through a winter in freshwater.

Full bench road: A road constructed on a side hill without using any of the material removed from the hillside as part of the road.

Gear storage sites: Areas where ceremonial objects are stored.

Geomorphic unit: A unit of geological classification.

Glacial outwash: Sediment that washes off a glacier.

Glaciofluvial: Pertaining to meltwater streams flowing from glaciers, or to the deposits made by such streams.

Glaciolacustrine: Pertaining to, derived from, or deposited in glacial lakes.

Glaciomarine: Pertaining to, derived from, or deposited in the oceanic environment.

Gravel (Pebble): The sediment particle size (0.1-2.5 inches in diameter) that is larger than sand, but smaller than a boulder.

Hydric: Characterized by, relating to, or requiring an abundance of water; available moisture is above climatic inputs because of topographical and/or soil features.

Hydrograph: A graph of water elevation or stream discharge against time.

Hydrologic maturity: The age of a managed forest when it has produced sufficient structure so that soil water use, crown interception of precipitation, and the forests' influences on snow accumulation and melt will not change significantly in the future.

Hydrostatic pressure: The force exerted by a column of water, whether in a standing body of water, in a crack, fissure, or within a water-bearing zone in soil or rock.

Infiltration: The movement of water from the soil surface into the soil.

Intermediate pole harvest: Removal of timber suitable for the manufacture of utility poles. The silvicultural objective of a pole sale is to capture high prices associated with a high value timber market while maintaining the productivity of the existing forest stand.

Large woody debris: Waterborne organic material that is at least six feet long and four inches in diameter at its narrowest point.

Late thinnings or Removal of a portion of a stand while retaining the commercial status of

partial cuts: the residual stand. Operations typically occur in well-differentiated stands with a range of tree size and crown classes; individual tree characteristics are generally the primary method of tree selection.

Lithified: Changed to stone; in particular, changed from loose sediment to sedimentary rock.

Mass wasting: The downslope movement of soil or rock material under the influence of gravity without the direct aid of other media such as water, air or ice.

Metamorphic rock: Derived from pre-existing rock by mineralogical, chemical and/or structural changes, essentially in the solid state, in response to marked changes in temperature, pressure, shearing stress and chemical environment, generally at depth in the earth's crust.

Metasedimentary: Sedimentary rock that has been subjected to some degree of mineralogical, chemical or structural alteration.

Monoculture: A plant community, crop or forest stand that is composed of or significantly dominated by just one species.

Mycorrhizae: The mutually beneficial association between a fungus and the roots of a plant; a mycorrhizal root takes up nutrients more efficiently than an uninfected root.

Nitrogen fixation: The process of plants converting gaseous nitrogen into chemically stable compounds.

Nominal: Not adjusted for the effects of changes in prices over time, i.e., embodies an inflationary premium.

Nutrient uptake: The extraction of soil nutrients by plant roots.

OAHP: The Office of Archaeology and Historic Preservation is the state office responsible for archaeological and cultural resources.

100-year site-potential tree height: The height at which dominant trees within a timber stand are expected to reach the age 100 based on the productivity of the site.

Orographic lifting: Air masses increasing in elevation because of mountainous terrain.

Orphaned forest roads: Old roads or railroad grades that are no-longer used or properly maintained. Many of these roads are overgrown or closed off, but have not satisfied the abandonment process.

Parr: The stage of juvenile salmon after the fry stage and before smoltification.

Partial cuts: See 'Late Thinnings'

Peak flow: The highest instantaneous discharge rate associated with the streamflow response to precipitation or snowmelt.

Petroglyphs: Symbols or designs (glyphs) pecked or scratched into rock surfaces. They are formed by using a hard rock to trace or peck shallow grooves on a rock surface. As "glyptic records," they are protected under RCW 27.44 Indian Graves and Records.

Phyllite: An intermediate-grade metamorphic rock that is slatelike and crumbly under pressure, composed of microscopic grains (platelets) of mica, sericite and chlorite.

Planar: Two-dimensional form without curves.

Plane-bed reach: A relatively flat stretch of stream characterized by gravel/cobble/boulder substrate.

Pools: That stream habitat unit that is generally deeper and slower than average, and has a smooth glassy surface.

Pore: A small to minute opening or interstice in soil or rock.

Positive pore pressure: Static water pressure within the soil that is caused by the accumulation of free water at the interface with a less permeable layer.

Present value: Conversion of costs and returns incurred or obtained at future times to equivalent values at the current time, by means of a discount rate.

Primary habitat: A preferred or optimal habitat that predictably supports the highest population density of a species; that habitat upon which a species is essentially dependent for long-term population maintenance.

Protohistoric: Native American cultures and sites affected by Euro-American influences.

Real: Adjusted for the effects of inflation, i.e., adjustment of values for changes in prices over time.

Reconstruction: Road reconstruction describes more extensive work than routine maintenance. The road geometry may be adjusted in some way or drainage structures installed. In practice, there is some overlap in what may be maintenance or reconstruction.

Redd: A salmon nest.

Regeneration harvest: A harvest designed for the establishment of a new stand to be managed over the next rotation in an even-aged silvicultural system.

Riffle: That stream habitat unit that is generally shallower and faster than average, and has a rippled surface.

Rip rap: Large erosion resistant material (i.e., boulders), used along waterways to prevent erosion.

Riparian ecosystem: The forest corridor along waterways that includes the aquatic and riparian zones, and an upland zone of direct influence.

Ritual bathing areas: Areas used in purification rituals.

Road maintenance and abandonment plan: Washington law (WAC 222-24-051) requires that forest landowners assess all active and orphan roads on their ownership by 2005. All active roads must meet current legal standards by 2015. As road systems are assessed, landowners submit a plan – referred to as an RMAP – for accomplishing the maintenance and abandonment work.

Road prism: The cross section of the road, including the traveled surface, ditch, cutbank and fillslope.

Rock clasts: Rocks composed principally of fragments derived from pre-existing rocks or minerals and transported some distance from the places of origin.

Salvage: Timber removal with a primary purpose of removing damaged material. It may be intended to recover value and/or prevent additional losses.

Scour: Erosion of the streambed during high flow events.

Secondary habitat: A habitat that is used by a species, but is clearly less suitable than primary habitat, as indicated by a lower population density or less frequent use. A habitat may be designated as secondary where it is

known to be used by a species but data are insufficient to clearly identify it as a primary habitat.

Seral: Relating to a phase in the sequential development of ecological communities formed in ecological succession in a particular habitat and leading to a particular climax association; intermediate communities in an ecological succession.

Side-cast: The material from a road cut that is placed on the downslope side and usually made part of the road prism.

Sinuosity: The snake-like meandering configuration of rivers and streams, usually expressed as actual river mile distance divided by straight down-valley distance.

Slash treatment: Manipulation of logging residue in order to minimize risk or negative consequences associated with its form or presence.

Slope creep: The gradual downslope movement of soil, caused by gravity.

Slope inclination: The deviation of the ground surface from horizontal, which is generally expressed in percent (vertical distance divided by horizontal distance, multiplied by 100).

Slope movement: The downslope transport of masses of soil and rock materials by gravity, including the general categories of soil, rock and debris falls, flows, slides and lateral spreads.

Slump: A generally deep-seated, slow slope movement process, in which a relatively intact mass of soil and/or rock slides downslope along a curved surface of rupture, with backwards rotation along a more or less horizontal axis parallel to the slope.

Smallwood thinnings: Timber removal from a commercial stand that benefits the growth potential of the stand. These typically occur in stands 25-35 years old with little crown differentiation. Spacing and/or stocking guidelines are the primary method of tree selection.

Soil water-holding capacity: The maximum amount of water, usually expressed as depth per unit area, that the soil can hold against gravity.

Spirit quest sites and traditional song places: Traditional culture participants sought, and seek, supernatural power and spiritual guidance in specific areas. These are known as spirit quest sites.

Stade: A period of time (substage) during a glacial stage marked by a glacial readvance.

Step-pool reach: A stretch of stream characterized by stair-stepping pool habitats formed by logs.

Stocking levels: The proportion that any measure of stand density (amount of tree vegetation in a unit of land area) bears to a wide variety of norms expressed in the same units and chosen for differing purposes, usually expressed in percentages.

Subduction: The process of one solid portion (plate) of the earth's crust descending beneath another.

Superimposition: The digging up of an adjacent salmon redd (nest) by another salmon, usually due to crowed conditions.

Surficial geologic processes: Pertaining to natural phenomena that affect soil and rock materials, along with ground and surface water, vegetation, and human development at or near the ground surface, such as erosion by wind, water or glacial ice, and slope movement.

Thrust fault: An inclined fracture along which rocks above the fracture appear to have moved upward with respect to those beneath.

Traditional named places: Areas on the landscape that were named by Native Americans. These may be descriptive, or may be the locations of legendary events.

Transpiration: The transmission of water vapor from plant surfaces, such as leaves.

Tree resilience: The capacity for a tree to recover from damage or injury.

Type 1 waters: All waters inventoried as "shorelines of the state."

Type 2 waters: Waters that are not classified as Type 1 waters and have high fish, wildlife or human use.

Type 3 waters: Waters that are not classified as Type 1 or Type 2 waters and have moderate to slight fish, wildlife or human use.

Type 4 waters: Waters that are perennially non-fish habitat.

Type 5 waters: Waters not typed as Type 1, 2, 3 or 4 waters.

Unmanaged condition: The forest that existed before human influence.

Water balance: An accounting over a specified time period of the inflow, outflow and storage changes within a watershed, water body or soil column.

Water year: The 12 month period from October 1 through September 30 that is usually referred to by the calendar year number for the January 1 through September 30 portion of the period (i.e., Water Year 2002 is October 1, 2001 - September 30, 2002).

Wet site: Site where natural conditions prevent deterioration of normally perishable artifacts.

Yarding: Act or process of conveying logs to a landing.